

ENVIRONMENTAL PROTECTION
AGENCY REGION II

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STEPHEN F. LICHTENSTEIN
SENIOR VICE PRESIDENT
SECRETARY AND
GENERAL COUNSEL

CA93 - August 25, 1993

Mr. Frank Faranca
Case Manager
New Jersey Department of Environmental
Protection and Energy
Bureau of Federal Case Management
CN-028
401 East State Street
Trenton, New Jersey 08625-0028

Re: Lenox China Facility - RFI Work Plan
Chemical Constituents Inventory

Dear Mr. Faranca:

In accordance with my letter of July 14, 1993 to you and Mr. Andrew Park, USEPA, and our subsequent telephone calls, Lenox is submitting with this letter a Chemical Constituents Inventory ("Inventory") of all raw materials believed to have been used in the past and/or currently being used at the Lenox China facility in Pomona, New Jersey.

This inventory presents all raw materials used at the facility by major and minor classifications. De-minimus usages, such as decals, are not included. The major classification is based upon usages of raw materials in quantities greater than 5,000 pounds per year and the minor classification is based on usages of raw materials between 750 and 5,000 pounds per year. De-minimus usages are defined for the purposes of this Inventory as usages below 750 pounds per year. The Lenox Manufacturing Engineering Department has made every reasonable effort to assure the completeness and accuracy of the Inventory. Both present and former employees of Lenox China, Pomona, New Jersey, were interviewed and records such as the back-up data for SARA Title III, §313, Form R were searched to ascertain the accuracy of this Inventory. A certification for the Inventory also is attached.

All major raw materials in the Inventory are inorganic compounds with the exception of sugar. All of these compounds are utilized in slip (the clay body of the ceramic ware produced), glaze (the glass coating of the clay body) or molds (the forms used in shaping the clay body). Groundwater has been or is continually tested for all of these inorganic compounds either directly for the element of concern or indirectly by indicator parameters. The major raw material metallic elements are aluminum, barium,



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boron, calcium, lead, magnesium, sodium, zinc and zirconium. Carbonates, sulfates, silicates and phosphates are the major raw material anions. Of these elements only lead and zinc are hazardous substances.

Aluminum (which is the principal component of clay and nepheline syenite) naturally occurs on the property and as such has not been measured in either soil samples or groundwater. Due to its being a major component of clays which existed (and still exist) on the property prior to the establishment of Lenox China, sampling results would be meaningless.

Barium, calcium, magnesium, sodium, sulfates and phosphates were routinely monitored in multiple previous groundwater sampling rounds and were at levels deemed insignificant for further consideration. These data have previously been presented in the Task I RCRA Facility Investigation (RFI) Report (see Monitoring Well data in Appendices A, B, C, D, E, F and G).

Boron, zirconium and sugar have not been measured directly in groundwater or soil samples. Boron and zirconium usage as raw materials in the process are as either naturally occurring substances that are not hazardous substances or in a glass (frit) matrix. Sugar is measured indirectly as chemical oxygen demand (COD) and total organic carbon (TOC) and these measurements were previously performed on groundwater samples. These measurements are reported in the Task I RFI Report (see Monitoring Well data in Appendices A, B, C, D, E, F and G).

The minor raw materials in the Inventory are all inorganic compounds with the exceptions of acetic acid, acetone, carboxylic acid salt - polymeric, chlorobenzene, hydrazine, isopropyl alcohol and trichloroethylene. TCE in groundwater has been and is routinely tested as part of the ongoing remediation program.

Acetic acid, hydrochloric acid, hydrofluoric acid, nitric acid, sodium hydroxide and sulfuric acid are acids and bases. All of these raw materials have been routinely tested in groundwater utilizing pH and TDS as measures of impact, if any. Acetic acid is also an organic compound which was routinely tested for indirectly in groundwater as COD or TOC. These measurements are reported in the Task I RFI Report (see Monitoring Well data in Appendices A, B, C, D, E, F and G).

The organic compounds of acetone, chlorobenzene and isopropyl alcohol are only utilized in the Decorating Department of the facility. Isopropyl alcohol is not a



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hazardous substance. The use of acetone and chlorobenzene is confined to thinning, wiping and cleaning of brushes and machinery which apply precious metal paints to ceramic ware. All of these decorating operations are conducted within the plant buildings. Because these chemicals after use contain precious metals, potential losses are highly improbable due to the rigid control practices of precious metal reclamation. The quantities of these chemicals used, although classified as minor for purposes of this Inventory, will tend to be nearer the de-minimus classification as opposed to the major classification. Measurements of these compounds in groundwater have been performed indirectly previously as COD or TOC. These measurements are reported in the Task I RFI Report (see Monitoring Well data in Appendices A, B, C, D, E, F and G).

Polymeric carboxylic acid salt is utilized as a deflocculant for both slip and glaze applications. This compound, under the proprietary name "Dispex N-40", is stored in drums within the plant buildings. This organic acid salt was routinely tested for indirectly in groundwater as COD or TOC. These measurements are reported in the Task I RFI Report (see Monitoring Well data in Appendices A, B, C, D, E, F and G).

Hydrazine is an organic compound last utilized approximately ten years ago as an oxygen scavenger in boiler water treatment. Inventory records from 1980 and personnel recollections indicate the presence of this chemical only in the Boiler House at a quantity never exceeding 1,000 pounds. During use in boiler water treatment, hydrazine is converted to water and nitrogen gas during the removal of dissolved oxygen. Hydrazine, as with polymeric carboxylic acid salt, has been measured in groundwater indirectly as COD or TOC. These measurements are reported in the Task I RFI Report (see Monitoring Well Data in Appendices A, B, C, D, E, F and G).

Sodium sulfite is now employed as the oxygen scavenger in boiler water treatment and was previously measured in groundwater as sulfate due to its rapid oxidation in the environment. Di-ammonium phosphate was used in industrial wastewater treatment and ammonia was measured directly in groundwater previously. These measurements are reported in the Task I RFI Report (see Monitoring Well data in Appendices A, B, C, D, E, F and G).

All other minor classification anions and cations are included in the major classification anions and cations described previously.

Soil analysis programs at the Lenox China, Pomona, New Jersey facility have been confined to lead, zinc and TCE. The soils at the site include clay that contains the



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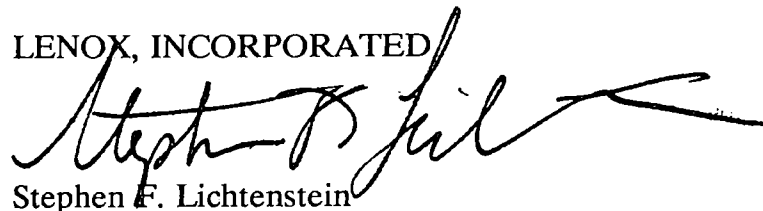
aluminum and silica components of the major and minor raw materials that are used in the manufacturing process. All other major and minor raw material anions and cations would migrate to groundwater if releases occurred to the soil. Their absence in the groundwater at levels above normal is indicative of the fact that releases to the soil have not occurred.

Based upon the information described above, Lenox believes that sufficient data exist to measure adequately the impact, if any, on groundwater and soil of all of the major and minor raw materials listed in the Inventory, with the exceptions of lead, zinc and TCE, and to conclude, in the Engineering Department's best professional judgment, that additional groundwater and soil sampling beyond that already required in the Permits and the RFI Work Plan is not required.

We would be happy to discuss further the Inventory and our belief that additional sampling is not required. Should you have any questions concerning the above, please do not hesitate to call me.

Sincerely yours,

LENOX, INCORPORATED



Stephen F. Lichtenstein

SFL:ct

Attachment: Chemical Constituents Inventory and Certification

cc: w/att: Mr. Andrew Park

United States Environmental Protection Agency
Air and Waste Management Division
Hazardous Waste Facilities Branch
Region II
26 Federal Plaza
New York, New York 10278

John Kinkela
Gary Berman
Nick Andrianas

CHEMICAL CONSTITUENTS INVENTORY
RAW MATERIAL USAGE
LENOX CHINA, POMONA, NEW JERSEY

Major Raw Materials¹

Process Usage

Aluminum Borosilicate Frit (Ground Glass)	Glaze
Aluminum Oxide	Slip
Ball Clay	Slip
Barium Monohydrate	Slip
Calcium Carbonate	Slip ⁴
Calcium Phosphate	Slip ⁴
Calcium Sulfate	Molds/Slip
China Clay	Slip
Lead Bisilicate	Glaze
Lead Borosilicate Frit (Ground Glass)	Glaze
Hydrated Lead Carbonate	Glaze ⁴
Magnesium Aluminum Silicate (V-Gum)	Slip
Magnesium Silicate (Talc)	Slip
Nepheline Syenite	Slip
Silica	Slip
Sugar	Glaze
Zinc Oxide	Glaze
Zirconium Oxide	Glaze ⁴

Minor Raw Materials²

Process Usage

Acetic Acid	Testing/Glaze pH Control
Acetone	Decorating
Aluminum Sulfate	Waste Treatment
Carboxylic Acid Salt-Polymeric	Slip/Glaze
Chlorobenzene	Decorating
Di-ammonium Phosphate	Industrial Waste Treatment ^{3,4}
Di-sodium Phosphate	Industrial Waste Treatment
Hydrazine	Boiler Treatment ⁴
Hydrochloric Acid	Acid Etch ^{3,4}
Hydrofluoric Acid	Acid Etch ^{3,4}
Isopropyl Alcohol	Decorating
Montmorillonite Clay	Glaze
Nitric Acid	Acid Etch ^{3,4}
Sodium Hydroxide	Acid Etch ³ /Water Treatment
Sodium Silicate	Slip
Sodium Sulphite	Boiler Treatment
Sulfuric Acid	Acid Etch ^{3,4}
Trichloroethylene	Acid Etch ^{3,4}

Notes:

¹Based on usage of greater than 5,000 pounds per year

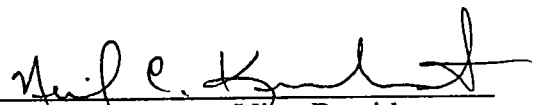
²Based on usage of between 750 and 5,000 pounds per year

³Process is no longer utilized

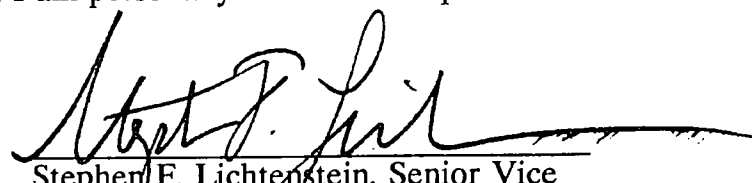
⁴Chemical is no longer used

CERTIFICATIONS PURSUANT TO N.J.A.C.7:26C - 1.2(b) and 1.2(c)

I certify under penalty of law that the information provided in the Chemical Constituents Inventory attached to the letter dated August 25, 1993 from Stephen F. Lichtenstein, Senior Vice President and General Counsel of Lenox, Incorporated to Mr. Frank Faranca of the New Jersey Department of Environmental Protection and Energy is true, accurate and complete. I am aware that there are significant civil penalties for knowingly submitting false, inaccurate or incomplete information and that I am committing a crime of the fourth degree if I make a written false statement which I do not believe to be true. I am also aware that if I knowingly direct or authorize a violation of any statute, I am personally liable for the penalties.


Neil C. Kuehnast, Vice President
Engineering of Lenox Manufacturing,
a Division of Lenox, Incorporated

I certify under penalty of law that I have personally examined and am familiar with the information provided in the Chemical Constituents Inventory attached to the letter dated August 25, 1993 from me to Mr. Frank Faranca of the New Jersey Department of Environmental Protection and Energy, and that based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the submitted information is true, accurate and complete. I am aware that there are significant civil penalties for knowingly submitting false, inaccurate or incomplete information and that I am committing a crime of the fourth degree if I make a written false statement which I do not believe to be true. I am also aware that if I knowingly direct or authorize the violation of any statute, I am personally liable for the penalties.


Stephen F. Lichtenstein, Senior Vice
President and General Counsel of
Lenox, Incorporated